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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,955	12/27/2000	Tadayoshi Iijima	P107424-00020	3185

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EXAMINER
UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
1773	9

DATE MAILED: 03/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/747,955	IIJIMA, TADAYOSHI	
	Examiner	Art Unit	
	Nikolas J. Uhlir	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *10-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,3,4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *See Continuation Sheet* .

DETAILED ACTION

Election/Restrictions

1. Claims 10-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because it is more than one paragraph. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Parr et al. (EP0297678).

5. The limitations: 1. Formed by applying a liquid in which the functional fine particles are dispersed and drying the liquid" (claim 2) and 2. "obtained by compressing with a compression force of at least 44 N/mm^2 (claim 4) are product by process limitations and do not appear to be further limiting in so far as the structure of the

product is concerned. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

Parr et al. teaches a method for forming a conductive layer of metal on a substrate. This method comprises depositing small metal particles onto a substrate and exposing them simultaneously to pressure and heat (column 1. line 53-column 2, line 2). The particles are typically nickel or copper which have a particle size preferably below 10 μm and are preferably lamellar in shape (column 2, lines 13-26). Although not specifically stated, it is well known that copper and nickel are metals, and therefore are conductive. The substrate is a thermoplastic or thermoset resin that has a softening point above 200^0 Celcius (Column 2, kines 34-48). After the particles are deposited on the support, pressure of 5-100 MPA (5-100 N/mm^2) is applied to deform the particles (column 4, lines 51-57). Heat is applied to render the coating conductive (column 5, lines 6-12).

6. Claims 1 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura (JP10258486).

7. The limitation "comprising a compressed layer of functional fine particles obtained by compressing a layer containing the functional fine particles" in claim 1 is a

product by process limitation and does not appear to be further limiting in so far as the structure of the product is concerned. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113.

For the purpose of this examination the examiner has relied upon a machine translation of the Kimura patent to support this rejection.

Kimura teaches a method for manufacturing a transparent conductive resin film. This method comprises the following steps: 1. Supplying a polyethylene terephthalate base film. 2. Coating the base film on ones side with an ink composition that comprises Indium Tin Oxide (ITO) powder mixed in a resin and 3. Calendering the coated base film by passing it through a calender roller (abstract). Websters Dictionary, 10th edition 1998 defines "calender" as "to press between rollers to smooth or glaze." The ITO particles have a particle size typically less then .2 μm (page 5, section6). The resin film containing the ITO particles is typically a thermoplastic such as an acrylic or polyester system or a UV curing thermoset resin, such as an epoxy (page 5 section 6). Although not specifically taught as substances suitable for impregnating an ITO film, the materials specified by Kimura for containing the ITO particles match the materials specified by the

applicant on page 9 of the specification. Therefore the materials specified by Kimura necessarily meet this limitation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhlir whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.

NJU
nju
March 4, 2002

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700

Continuation of Attachment(s) 6). Other: machine translation of JP10258486.